



SEQUENCE LISTING

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<110> Einat, et al

<120> GENES ASSOCIATED WITH MECHANICAL STRESS, EXPRESSION PRODUCTS THEREFROM, AND USES THEREOF

<130> 540579-2007.2

<140> 09/905,129

<141> 2001-07-13

<150> 09/802,318

<151> 2001-03-08

<150> 60/207,821

<151> 2000-05-30

<150> 60/084,944

<151> 1998-05-11

<150> 60/085,673

<151> 1998-05-15

<160> 25

<170> PatentIn version 3.0

<210> 1

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<212> DNA

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<222> (1)..(8883)

<223> 'n' can be any nucleotide 'a', 'c', 'g' or 't'.

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Cys Ala Cys Tyr Val Pro Thr Glu Val His Cys Thr Phe Arg Tyr Leu
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Thr Ser Ile Pro Asp Gly Ile Pro Ala Asn Val Glu Arg Ile Asn Leu
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Gly Tyr Asn Ser Leu Thr Arg Leu Thr Glu Asn Asp Phe Asp Gly Leu
65          70          75          80

Ser Lys Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Arg Val
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Ser Asp Lys Thr Phe Ser Gly Leu Gln Ser Leu Gln Val Leu Lys Met
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Ser Tyr Asn Lys Val Gln Ile Ile Arg Lys Asp Thr Phe Tyr Gly Leu
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Gly Ser Leu Val Arg Leu His Leu Asp His Asn Asn Ile Glu Phe Ile
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Asn Pro Glu Ala Phe Tyr Gly Leu Thr Ser Leu Arg Leu Val His Leu
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Glu Gly Asn Arg Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu
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Ser Tyr Leu Gln Ile Phe Lys Thr Ser Phe Ile Lys Tyr Leu Phe Leu
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Ser Asp Asn Phe Leu Thr Ser Leu Pro Lys Glu Met Val Ser Tyr Met
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Pro Asn Leu Glu Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp
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Cys His Leu Lys Trp Leu Ser Glu Trp Met Gln Gly Asn Pro Asp Ile
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Ile Lys Cys Lys Lys Asp Arg Ser Ser Ser Ser Pro Gln Gln Cys Pro
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His Asp Ser Gly Val Gln His Thr Val Val Thr Gly Glu Thr Leu Asp
580 585 590

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595 600 605

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Gly His Tyr Gln Cys Val Ala Ala Asn Pro Ser Gly Ala Asp Phe Ser
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660 665 670

Asp Arg Glu Ala Gly Gly Ser Gly Leu Gly Glu Pro Asn Ser Ser Val
675 680 685

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Pro Lys Lys Gln Glu Asn Thr Thr Val Lys Pro Val Pro Leu Ala Val
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Pro Pro Asp Glu Glu Phe Met Val Leu Lys Thr Lys Ala Ser Gly Val
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Pro Gly Arg Ser Pro Thr Ala Asp Ser Gly Pro Val Asn His Gly Phe
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Met Thr Ser Ile Ala Ser Gly Thr Glu Val Ser Thr Val Asn Pro Gln
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Thr Leu Gln Ser Glu His Leu Pro Asp Phe Lys Leu Phe Ser Val Thr
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Leu Leu Gly Thr Asp Tyr Ala Thr Thr Tyr Ile Gln Val Leu
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 <223> 'n' can be any nucleotide 'a', 'c', 'g' or 't'.

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<223> 'n' can be any nucleotide 'a', 'c', 'g' or 't'.

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 <211> 897
 <212> DNA
 <213> Mus musculus

<220>
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<222> (1)..(897)
 <223> 'n' can be any nucleotide 'a', 'c', 'g' or 't'.

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<210> 10
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 <212> PRT
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<220>
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Asn His Ile Gln Pro Val Trp Gln Leu Leu Ala Leu Tyr Ser Asp Ser
370 375 380

Pro Leu Ile Leu Glu Arg Lys Pro Gln Leu Thr Glu Thr Pro Ser Leu
385 390 395 400

Ser Ser Arg Tyr Lys Gln Val Ala Leu Arg Pro Glu Asp Ile Phe Thr
405 410 415

Ser Ile Glu Ala Asp Val Arg Ala Asp Pro Phe Trp Phe Gln Gln Glu
420 425 430

Lys Ile Val Leu Gln Leu Asn Arg Thr Ala Thr Thr Leu Ser Thr Leu
435 440 445

Gln Ile Gln Phe Ser Thr Asp Ala Gln Ile Ala Leu Pro Arg Ala Glu
450 455 460

Met Arg Ala Glu Arg Leu Lys Trp Thr Met Ile Leu Met Met Asn Asn
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Pro Lys Leu Glu Arg Thr Val Leu Val Gly Gly Thr Ile Ala Leu Ser
485 490 495

Cys Pro Gly Lys Gly Asp Pro Ser Pro His Leu Glu Trp Leu Leu Ala
500 505 510

Asp Gly Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile
515 520 525

Leu Ile Asp Lys Asn Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe
530 535 540

Asp Ala Gly Leu Tyr His Cys Ile Ser Thr Asn Asp Ala Asp Ala Asp
545 550 555 560

Val Leu Thr Tyr Arg Ile Thr Val Val Glu Pro Tyr Gly Glu Ser Thr
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His Asp Ser Gly Val Gln His Thr Val Val Thr Gly Glu Thr Leu Asp
580 585 590

Leu Pro Cys Leu Ser Thr Gly Val Pro Asp Ala Ser Ile Ser Trp Ile
595 600 605

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Gly His Tyr Gln Cys Val Ala Ala Asn Pro Ser Gly Ala Asp Phe Ser
645 650 655

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Ser Leu Leu Val Lys Ile Gln	Val Ile Thr Ala Pro	Pro Val Ile
1805	1810	1815

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Gln Val Ser Val Lys Met Lys Gly Gln Arg Pro Leu Glu His Asp Gly		
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Glu Thr Glu Gly Ser Gly Leu Asp Glu Ser Asn Pro Ile Ala His Leu		
	675	680 685
Lys Glu Pro Pro Gly Ala Gln Leu Arg Thr Ser Ala Leu Met Glu Ala		
	690	695 700
Glu Val Gly Lys His Thr Ser Ser Thr Ser Lys Arg His Asn Tyr Arg		
	705	710 715 720
Glu Leu Thr Leu Gln Arg Arg Gly Asp Ser Thr His Arg Arg Phe Arg		
	725	730 735
Glu Asn Arg Arg His Phe Pro Pro Ser Ala Arg Arg Ile Asp Pro Gln		
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His Trp Ala Ala Leu Leu Glu Lys Ala Lys Lys Asn Ala Met Pro Asp		
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Lys Arg Glu Asn Thr Thr Val Ser Pro Pro Pro Val Val Thr Gln Leu		
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Pro Glu Asn Thr Thr Gly Ile Ser Ser Thr Ile Ser Phe His Ser	1385	1390	1395
Arg Thr Leu Asn Leu Thr Asp Val Ile Glu Glu Leu Ala Gln Ala	1400	1405	1410
Ser Thr Gln Thr Leu Lys Ser Thr Ile Ala Ser Glu Thr Thr Leu	1415	1420	1425
Ser Ser Lys Ser His Gln Ser Thr Thr Thr Arg Lys Ala Ser Leu	1430	1435	1440
Asp Thr Pro Ile Pro Pro Phe Leu Ser Ser Ser Ala Thr Leu Met	1445	1450	1455
Pro Val Pro Ile Ser Pro Pro Phe Thr Gln Arg Ala Val Thr Asp	1460	1465	1470
Thr Arg Gly Asp Ser His Phe Arg Leu Met Thr Asn Thr Val Val	1475	1480	1485
Lys Leu His Glu Ser Ser Arg His Asn Leu Gln Met Pro Ser Ser			

2060	2065	2070
Gly Val 2075	Ala Glu Glu Gly Asp 2080	Tyr Thr Cys Tyr Ala Gln Asn Thr 2085
Leu Gly 2090	Lys Asp Glu Met Lys 2095	Val His Leu Thr Val Ile Thr Ala 2100
Ala Pro 2105	Arg Ile Arg Gln Ser 2110	Asn Lys Thr Asn Lys Arg Ile Lys 2115
Ala Gly 2120	Asp Thr Ala Val Leu 2125	Asp Cys Glu Val Thr Gly Asp Pro 2130
Lys Pro 2135	Lys Ile Phe Trp Leu 2140	Leu Pro Ser Asn Asp Met Ile Ser 2145
Phe Ser 2150	Ile Asp Arg Tyr Thr 2155	Phe His Ala Asn Gly Ser Leu Thr 2160
Ile Asn 2165	Lys Val Lys Leu Leu 2170	Asp Ser Gly Glu Tyr Val Cys Val 2175
Ala Arg 2180	Asn Pro Ser Gly Asp 2185	Asp Thr Lys Met Tyr Lys Leu Asp 2190
Val Val 2195	Ser Lys Pro Pro Leu 2200	Ile Asn Gly Leu Tyr Thr Asn Arg 2205
Thr Val 2210	Ile Lys Ala Thr Ala 2215	Val Arg His Ser Lys Lys His Phe 2220
Asp Cys 2225	Arg Ala Glu Gly Thr 2230	Pro Ser Pro Glu Val Met Trp Ile 2235
Met Pro 2240	Asp Asn Ile Phe Leu 2245	Thr Ala Pro Tyr Tyr Gly Ser Arg 2250
Ile Thr 2255	Val His Lys Asn Gly 2260	Thr Leu Glu Ile Arg Asn Val Arg 2265
Leu Ser 2270	Asp Ser Ala Asp Phe 2275	Ile Cys Val Ala Arg Asn Glu Gly 2280
Gly Glu 2285	Ser Val Leu Val Val 2290	Gln Leu Glu Val Leu Glu Met Leu 2295
Arg Arg 2300	Pro Thr Phe Arg Asn 2305	Pro Phe Asn Glu Lys Ile Val Ala 2310
Gln Leu 2315	Gly Lys Ser Thr Ala 2320	Leu Asn Cys Ser Val Asp Gly Asn 2325
Pro Pro 2330	Pro Glu Ile Ile Trp 2335	Ile Leu Pro Asn Gly Thr Arg Phe 2340
Ser Asn	Gly Pro Gln Ser Tyr	Gln Tyr Leu Ile Ala Ser Asn Gly

2345	2350	2355
Ser Phe Ile Ile Ser Lys Thr Thr Arg Glu Asp Ala Gly Lys Tyr		
2360	2365	2370
Arg Cys Ala Ala Arg Asn Lys Val Gly Tyr Ile Glu Lys Leu Val		
2375	2380	2385
Ile Leu Glu Ile Gly Gln Lys Pro Val Ile Leu Thr Tyr Ala Pro		
2390	2395	2400
Gly Thr Val Lys Gly Ile Ser Gly Glu Ser Leu Ser Leu His Cys		
2405	2410	2415
Val Ser Asp Gly Ile Pro Lys Pro Asn Ile Lys Trp Thr Met Pro		
2420	2425	2430
Ser Gly Tyr Val Val Asp Arg Pro Gln Ile Asn Gly Lys Tyr Ile		
2435	2440	2445
Leu His Asp Asn Gly Thr Leu Val Ile Lys Glu Ala Thr Ala Tyr		
2450	2455	2460
Asp Arg Gly Asn Tyr Ile Cys Lys Ala Gln Asn Ser Val Gly His		
2465	2470	2475
Thr Leu Ile Thr Val Pro Val Met Ile Val Ala Tyr Pro Pro Arg		
2480	2485	2490
Ile Thr Asn Arg Pro Pro Arg Ser Ile Val Thr Arg Thr Gly Ala		
2495	2500	2505
Ala Phe Gln Leu His Cys Val Ala Leu Gly Val Pro Lys Pro Glu		
2510	2515	2520
Ile Thr Trp Glu Met Pro Asp His Ser Leu Leu Ser Thr Ala Ser		
2525	2530	2535
Lys Glu Arg Thr His Gly Ser Glu Gln Leu His Leu Gln Gly Thr		
2540	2545	2550
Leu Val Ile Gln Asn Pro Gln Thr Ser Asp Ser Gly Ile Tyr Lys		
2555	2560	2565
Cys Thr Ala Lys Asn Pro Leu Gly Ser Asp Tyr Ala Ala Thr Tyr		
2570	2575	2580
Ile Gln Val		
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<222> (1)..(236)
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Ala	Ile	Cys	Leu	Val	Val	Thr	Pro	Gly	Ser	Arg	Val	Cys	Pro	Arg	Arg
			20					25					30		
Cys	Ala	Cys	Tyr	Val	Pro	Thr	Glu	Val	His	Cys	Thr	Phe	Arg	Asp	Leu
		35					40					45			
Thr	Ser	Ile	Pro	Asp	Gly	Pro	Ala	Asn	Val	Glu	Arg	Val	Asn	Leu	Gly
	50					55					60				
Tyr	Asn	Ser	Leu	Thr	Arg	Leu	Thr	Glu	Asn	Asp	Phe	Ser	Gly	Leu	Ser
65					70					75				80	
Arg	Leu	Glu	Leu	Leu	Met	Leu	His	Ser	Asn	Gly	Ile	His	Arg	Val	Ser
				85					90					95	
Asp	Lys	Thr	Phe	Ser	Gly	Leu	Gln	Ser	Leu	Gln	Val	Leu	Lys	Met	Ser
			100					105					110		
Tyr	Asn	Lys	Val	Gln	Ile	Ile	Glu	Lys	Asp	Thr	Leu	Tyr	Gly	Leu	Arg
		115					120						125		
Ser	Leu	Thr	Arg	Leu	His	Leu	Asp	His	Asn	Asn	Ile	Glu	Phe	Ile	Asn
	130					135					140				
Pro	Glu	Ala	Phe	Tyr	Gly	Leu	Thr	Leu	Leu	Arg	Leu	Val	His	Leu	Glu
145					150					155				160	
Gly	Asn	Arg	Leu	Thr	Lys	Leu	His	Pro	Asp	Thr	Phe	Val	Ser	Leu	Ser
			165						170					175	
Tyr	Leu	Gln	Ile	Phe	Lys	Thr	Ser	Phe	Ile	Lys	Xaa	Leu	Tyr	Leu	Tyr
		180						185					190		
Asp	Asn	Phe	Thr	Ser	Leu	Pro	Lys	Glu	Met	Val	Ser	Ser	Met	Pro	Asn
		195					200					205			
Leu	Glu	Ser	Leu	Tyr	Leu	His	Gly	Asn	Pro	Trp	Thr	Cys	Asp	Cys	His
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Leu	Lys	Trp	Leu	Ser	Glu	Trp	Met	Gln	Gly	Asn	Pro				
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<220>

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Leu Cys Met Asn Pro Arg Ile Ser Lys Gly Arg Pro Phe Ala Met Val
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Pro Ser Gly Ala Phe Leu Cys Thr Lys Pro Thr Ile Asp Pro Ser Leu
275 280 285

Lys Ser Lys Ser Leu Val Thr Gln Glu Asp Asn Gly Ser Ala Ser Thr
290 295 300

Ser Pro Gln Asp Phe Ile Glu Pro Phe Gly Ser Leu Ser Leu Asn Met
305 310 315 320

Thr Xaa Xaa Ser Gly Asn Lys Ala Asp Met Val Cys Ser Ile Gln Lys
325 330 335

Pro Ser Arg Thr Ser Pro Thr Ala Phe Thr Glu Glu Asn Asp Tyr Ile
340 345 350

Met Leu Asn Ala Ser Phe Ser Thr Asn Leu Val Cys Ser Val Asp Tyr
355 360 365

Asn His Ile Gln Pro Val Trp Gln Leu Leu Ala Leu Tyr Ser Asp Ser
370 375 380

Pro Leu Ile Leu Glu Arg Lys Pro Gln Leu Thr Glu Thr Pro Ser Leu
385 390 395 400

Ser Ser Arg Tyr Lys Gln Val Ala Leu Arg Pro Glu Asp Ile Phe Thr
405 410 415

Ser Ile Glu Ala Asp Val Arg Ala Asp Pro Phe Trp Phe Gln Gln Glu
420 425 430

Lys Ile Val Leu Gln Leu Asn Arg Thr Ala Thr Thr Leu Ser Thr Leu
435 440 445

Gln Ile Gln Phe Ser Thr Asp Ala Gln Ile Ala Leu Pro Arg Ala Glu
450 455 460

Met Arg Ala Glu Arg Leu Lys Trp Thr Met Ile Leu Met Met Asn Asn
465 470 475 480

Pro Lys Leu Glu Arg Thr Val Leu Val Gly Gly Thr Ile Ala Leu Ser
485 490 495

Cys Pro Gly Lys Gly Asp Pro Ser Pro His Leu Glu Trp Leu Leu Ala
500 505 510

Asp Gly Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile
515 520 525

Leu Ile Asp Lys Asn Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe
530 535 540

Asp Ala Gly Leu Tyr His Cys Ile Ser Thr Asn Asp Ala Asp Ala Asp
545 550 555 560

Val Leu Thr Tyr Arg Ile Thr Val Val Glu Pro Tyr Gly Glu Ser Thr
565 570 575

Lys Asp	Ser Val	Glu Thr	Thr	Pro Leu	Pro Ser	Pro	Leu Ser	Thr	
1175				1180			1185		
Pro Ser	Ile Pro	Thr Ser	Thr	Lys Phe	Ser Lys	Arg	Lys Thr	Pro	
1190				1195			1200		
Leu His	Gln Ile	Phe Val	Asn	Asn Gln	Lys Lys	Glu	Gly Met	Leu	
1205				1210			1215		
Lys Asn	Pro Tyr	Gln Phe	Gly	Leu Gln	Lys Asn	Pro	Ala Ala	Lys	
1220				1225			1230		
Leu Pro	Lys Ile	Ala Pro	Leu	Leu Pro	Thr Gly	Gln	Ser Ser	Pro	
1235				1240			1245		
Ser Asp	Ser Thr	Thr Leu	Leu	Thr Ser	Pro Pro	Pro	Ala Leu	Ser	
1250				1255			1260		
Thr Thr	Met Ala	Ala Thr	Gln	Asn Lys	Gly Thr	Glu	Val Val	Ser	
1265				1270			1275		
Gly Ala	Arg Ser	Leu Ser	Ala	Gly Lys	Lys Gln	Pro	Phe Thr	Asn	
1280				1285			1290		
Ser Ser	Pro Val	Leu Pro	Ser	Thr Ile	Ser Lys	Arg	Ser Asn	Thr	
1295				1300			1305		
Leu Asn	Phe Leu	Ser Thr	Glu	Thr Pro	Thr Val	Thr	Ser Pro	Thr	
1310				1315			1320		
Ala Thr	Ala Ser	Val Ile	Met	Ser Glu	Thr Gln	Arg	Thr Arg	Ser	
1325				1330			1335		
Lys Glu	Ala Lys	Asp Gln	Ile	Lys Gly	Pro Arg	Lys	Asn Arg	Asn	
1340				1345			1350		
Asn Ala	Asn Thr	Thr Pro	Arg	Gln Val	Ser Gly	Tyr	Ser Ala	Tyr	
1355				1360			1365		
Ser Ala	Leu Thr	Thr Ala	Asp	Thr Pro	Leu Ala	Phe	Ser His	Ser	
1370				1375			1380		
Pro Arg	Gln Asp	Asp Gly	Gly	Asn Val	Ser Ala	Val	Ala Tyr	His	
1385				1390			1395		
Ser Thr	Thr Ser	Leu Leu	Ala	Ile Thr	Glu Leu	Phe	Glu Lys	Tyr	
1400				1405			1410		
Thr Gln	Thr Leu	Gly Asn	Thr	Thr Ala	Leu Glu	Thr	Thr Leu	Leu	
1415				1420			1425		
Ser Lys	Ser Gln	Glu Ser	Thr	Thr Val	Lys Arg	Ala	Ser Asp	Thr	
1430				1435			1440		
Pro Pro	Pro Leu	Leu Ser	Ser	Gly Ala	Pro Pro	Val	Pro Thr	Pro	
1445				1450			1455		

Ser 1460	Pro	Pro	Pro	Phe	Thr	Lys 1465	Gly	Val	Val	Thr	Asp 1470	Ser	Lys	Val
Thr 1475	Ser	Ala	Phe	Gln	Met	Thr 1480	Ser	Asn	Arg	Val	Val 1485	Thr	Ile	Tyr
Glu 1490	Ser	Ser	Arg	His	Asn	Thr 1495	Asp	Leu	Gln	Gln	Pro 1500	Ser	Ala	Glu
Ala 1505	Ser	Pro	Asn	Pro	Glu	Ile 1510	Ile	Thr	Gly	Thr	Thr 1515	Asp	Ser	Pro
Ser 1520	Asn	Leu	Phe	Pro	Ser	Thr 1525	Ser	Val	Pro	Ala	Leu 1530	Arg	Val	Asp
Lys 1535	Pro	Gln	Asn	Ser	Lys	Trp 1540	Lys	Pro	Ser	Pro	Trp 1545	Pro	Glu	His
Lys 1550	Tyr	Gln	Leu	Lys	Ser	Tyr 1555	Ser	Glu	Thr	Ile	Glu 1560	Lys	Gly	Lys
Arg 1565	Pro	Ala	Val	Ser	Met	Ser 1570	Pro	His	Leu	Ser	Leu 1575	Pro	Glu	Ala
Ser 1580	Thr	His	Ala	Ser	His	Trp 1585	Asn	Thr	Gln	Lys	His 1590	Ala	Glu	Lys
Ser 1595	Val	Phe	Asp	Lys	Lys	Pro 1600	Gly	Gln	Asn	Pro	Thr 1605	Ser	Lys	His
Leu 1610	Pro	Tyr	Val	Ser	Leu	Pro 1615	Lys	Thr	Leu	Leu	Lys 1620	Lys	Pro	Arg
Ile 1625	Ile	Gly	Gly	Lys	Ala	Ala 1630	Ser	Phe	Thr	Val	Pro 1635	Ala	Asn	Ser
Asp 1640	Val	Phe	Leu	Pro	Cys	Glu 1645	Ala	Val	Gly	Asp	Pro 1650	Leu	Pro	Ile
Ile 1655	His	Trp	Thr	Arg	Val	Ser 1660	Ser	Gly	Xaa	Glu	Ile 1665	Ser	Gln	Gly
Thr 1670	Gln	Lys	Ser	Arg	Phe	His 1675	Val	Leu	Pro	Asn	Gly 1680	Thr	Leu	Ser
Ile 1685	Gln	Arg	Val	Ser	Ile	Gln 1690	Asp	Arg	Gly	Gln	Tyr 1695	Leu	Cys	Ser
Ala 1700	Phe	Asn	Pro	Leu	Gly	Val 1705	Asp	His	Phe	His	Val 1710	Ser	Leu	Ser
Val 1715	Val	Phe	Tyr	Pro	Ala	Arg 1720	Ile	Leu	Asp	Arg	His 1725	Val	Lys	Glu
Ile 1730	Thr	Val	His	Phe	Gly	Ser 1735	Thr	Val	Glu	Leu	Lys 1740	Cys	Arg	Val

000001 000002 000003 000004 000005 000006 000007 000008 000009 000010 000011 000012 000013 000014 000015 000016 000017 000018 000019 000020 000021 000022 000023 000024 000025 000026 000027 000028 000029 000030 000031 000032 000033 000034 000035 000036 000037 000038 000039 000040 000041 000042 000043 000044 000045 000046 000047 000048 000049 000050 000051 000052 000053 000054 000055 000056 000057 000058 000059 000060 000061 000062 000063 000064 000065 000066 000067 000068 000069 000070 000071 000072 000073 000074 000075 000076 000077 000078 000079 000080 000081 000082 000083 000084 000085 000086 000087 000088 000089 000090 000091 000092 000093 000094 000095 000096 000097 000098 000099 000100 000101 000102 000103 000104 000105 000106 000107 000108 000109 000110 000111 000112 000113 000114 000115 000116 000117 000118 000119 000120 000121 000122 000123 000124 000125 000126 000127 000128 000129 000130 000131 000132 000133 000134 000135 000136 000137 000138 000139 000140 000141 000142 000143 000144 000145 000146 000147 000148 000149 000150 000151 000152 000153 000154 000155 000156 000157 000158 000159 000160 000161 000162 000163 000164 000165 000166 000167 000168 000169 000170 000171 000172 000173 000174 000175 000176 000177 000178 000179 000180 000181 000182 000183 000184 000185 000186 000187 000188 000189 000190 000191 000192 000193 000194 000195 000196 000197 000198 000199 000200 000201 000202 000203 000204 000205 000206 000207 000208 000209 000210 000211 000212 000213 000214 000215 000216 000217 000218 000219 000220 000221 000222 000223 000224 000225 000226 000227 000228 000229 000230 000231 000232 000233 000234 000235 000236 000237 000238 000239 000240 000241 000242 000243 000244 000245 000246 000247 000248 000249 000250 000251 000252 000253 000254 000255 000256 000257 000258 000259 000260 000261 000262 000263 000264 000265 000266 000267 000268 000269 000270 000271 000272 000273 000274 000275 000276 000277 000278 000279 000280 000281 000282 000283 000284 000285 000286 000287 000288 000289 000290 000291 000292 000293 000294 000295 000296 000297 000298 000299 000300 000301 000302 000303 000304 000305 000306 000307 000308 000309 000310 000311 000312 000313 000314 000315 000316 000317 000318 000319 000320 000321 000322 000323 000324 000325 000326 000327 000328 000329 000330 000331 000332 000333 000334 000335 000336 000337 000338 000339 000340 000341 000342 000343 000344 000345 000346 000347 000348 000349 000350 000351 000352 000353 000354 000355 000356 000357 000358 000359 000360 000361 000362 000363 000364 000365 000366 000367 000368 000369 000370 000371 000372 000373 000374 000375 000376 000377 000378 000379 000380 000381 000382 000383 000384 000385 000386 000387 000388 000389 000390 000391 000392 000393 000394 000395 000396 000397 000398 000399 000400 000401 000402 000403 000404 000405 000406 000407 000408 000409 000410 000411 000412 000413 000414 000415 000416 000417 000418 000419 000420 000421 000422 000423 000424 000425 000426 000427 000428 000429 000430 000431 000432 000433 000434 000435 000436 000437 000438 000439 000440 000441 000442 000443 000444 000445 000446 000447 000448 000449 000450 000451 000452 000453 000454 000455 000456 000457 000458 000459 000460 000461 000462 000463 000464 000465 000466 000467 000468 000469 000470 000471 000472 000473 000474 000475 000476 000477 000478 000479 000480 000481 000482 000483 000484 000485 000486 000487 000488 000489 000490 000491 000492 000493 000494 000495 000496 000497 000498 000499 000500 000501 000502 000503 000504 000505 000506 000507 000508 000509 000510 000511 000512 000513 000514 000515 000516 000517 000518 000519 000520 000521 000522 000523 000524 000525 000526 000527 000528 000529 000530 000531 000532 000533 000534 000535 000536 000537 000538 000539 000540 000541 000542 000543 000544 000545 000546 000547 000548 000549 000550 000551 000552 000553 000554 000555 000556 000557 000558 000559 000560 000561 000562 000563 000564 000565 000566 000567 000568 000569 000570 000571 000572 000573 000574 000575 000576 000577 000578 000579 000580 000581 000582 000583 000584 000585

Met Lys Val Lys Gly Arg Gly Ile Thr Cys Leu Leu Val Ser Phe Ala
1 5 10 15

Cys Ala Cys Tyr Met Pro Thr Glu Val His Cys Thr Phe Arg Tyr Leu
35 40 45

Gly Tyr Asn Ser Leu Val Arg Leu Met Glu Thr Asp Phe Ser Gly Leu
65 70 75 80

Pro Asp Lys Thr Phe Ser Asp Leu Gln Ala Leu Gln Val Leu Lys Met
100 105 110

Arg Ser Leu Thr Arg Leu His Met Asp His Asn Asn Ile Glu Phe Ile
130 135 140

Asn Pro Glu Val Phe Tyr Gly Leu Asn Phe Leu Arg Leu Val His Leu
145 150 155 160

Glu Gly Asn Gln Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu
165 170 175

Ser Tyr Leu Gln Ile Phe Lys Ile Ser Phe Ile Lys Phe Leu Tyr Leu
180 185 190

Ser Asp Asn Phe Leu Thr Ser Leu Pro Gln Glu Met Val Ser Tyr Met
195 200 205

Pro Asp Leu Asp Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp
210 215 220

Cys His Leu Lys Trp Leu Ser Asp Trp Ile Gln Pro Asp Val Ile Lys
225 230 235 240

Cys Lys Lys Asp Arg Ser Pro Ser Ser Ala Gln Gln Cys Pro Leu Cys
245 250 255

Met Asn Pro Arg Thr Ser Lys Gly Lys Pro Leu Ala Met Val Ser Ala

	260						265						270						
Ala Ala Phe Gln Cys Ala Lys Pro Thr Ile Asp Ser Ser Leu Lys Ser																			
	275						280						285						
Lys Ser Leu Thr Ile Leu Glu Asp Ser Ser Ser Ala Phe Ile Ser Pro																			
	290						295						300						
Gln Gly Phe Met Ala Pro Phe Gly Ser Leu Thr Leu Asn Met Thr Asp																			
	305						310						315						
Gln Ser Gly Asn Glu Ala Asn Met Val Cys Ser Ile Gln Lys Pro Ser																			
	325						330						335						
Arg Thr Ser Pro Ile Ala Phe Thr Glu Glu Asn Asp Tyr Ile Val Leu																			
	340						345						350						
Asn Thr Ser Phe Ser Thr Phe Leu Val Cys Asn Ile Asp Tyr Gly His																			
	355						360						365						
Ile Gln Pro Val Trp Gln Ile Leu Ala Leu Tyr Ser Asp Ser Pro Leu																			
	370						375						380						
Ile Leu Glu Arg Ser His Leu Leu Ser Glu Thr Pro Gln Leu Tyr Tyr																			
	385						390						395						
Lys Tyr Lys Gln Val Ala Pro Lys Pro Glu Asp Ile Phe Thr Asn Ile																			
	405						410						415						
Glu Ala Asp Leu Arg Ala Asp Pro Ser Trp Leu Met Gln Asp Gln Ile																			
	420						425						430						
Ser Leu Gln Leu Asn Arg Thr Ala Thr Thr Phe Ser Thr Leu Gln Ile																			
	435						440						445						
Gln Tyr Ser Ser Asp Ala Gln Ile Thr Leu Pro Arg Ala Glu Met Arg																			
	450						455						460						
Pro Val Lys His Lys Trp Thr Met Ile Ser Arg Asp Asn Asn Thr Lys																			
	465						470						475						
Leu Glu His Thr Val Leu Val Gly Gly Thr Val Gly Leu Asn Cys Pro																			
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Gly Gln Gly Asp Pro Thr Pro His Val Asp Trp Leu Leu Ala Asp Gly																			
	500						505						510						
Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile Leu Ile																			
	515						520						525						
Asp Lys Ser Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe Asp Thr																			
	530						535						540						
Gly Val Tyr His Cys Ile Ser Ser Asn Tyr Asp Asp Ala Asp Ile Leu																			
	545						550						555						
Thr Tyr Arg Ile Thr Val Val Glu Pro Leu Val Glu Ala Tyr Gln Glu																			

565										570					575						
Asn	Gly	Ile	His	His	Thr	Val	Phe	Ile	Gly	Glu	Thr	Leu	Asp	Leu	Pro						
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Cys	His	Ser	Thr	Gly	Ile	Pro	Asp	Ala	Ser	Ile	Ser	Trp	Val	Ile	Pro						
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Gly	Asn	Asn	Val	Leu	Tyr	Gln	Ser	Ser	Arg	Asp	Lys	Lys	Val	Leu	Asn						
	610					615					620										
Asn	Gly	Thr	Leu	Arg	Ile	Leu	Gln	Val	Thr	Pro	Lys	Asp	Gln	Gly	Tyr						
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Tyr	Arg	Cys	Val	Ala	Ala	Asn	Pro	Ser	Gly	Val	Asp	Phe	Leu	Ile	Phe						
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Gln	Val	Ser	Val	Lys	Met	Lys	Gly	Gln	Arg	Pro	Leu	Glu	His	Asp	Gly						
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Glu	Thr	Glu	Gly	Ser	Gly	Leu	Asp	Glu	Ser	Asn	Pro	Ile	Ala	His	Leu						
		675					680					685									
Lys	Glu	Pro	Pro	Gly	Ala	Gln	Leu	Arg	Thr	Ser	Ala	Leu	Met	Glu	Ala						
	690					695					700										
Glu	Val	Gly	Lys	His	Thr	Ser	Ser	Thr	Ser	Lys	Arg	His	Asn	Tyr	Arg						
705					710					715					720						
Glu	Leu	Thr	Leu	Gln	Arg	Arg	Gly	Asp	Ser	Thr	His	Arg	Arg	Phe	Arg						
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Glu	Asn	Arg	Arg	His	Phe	Pro	Pro	Ser	Ala	Arg	Arg	Ile	Asp	Pro	Gln						
			740					745					750								
His	Trp	Ala	Ala	Leu	Leu	Glu	Lys	Ala	Lys	Lys	Asn	Ala	Met	Pro	Asp						
		755					760					765									
Lys	Arg	Glu	Asn	Thr	Thr	Val	Ser	Pro	Pro	Pro	Val	Val	Thr	Gln	Leu						
	770					775					780										
Pro	Asn	Ile	Pro	Gly	Glu	Glu	Asp	Asp	Ser	Ser	Gly	Met	Leu	Ala	Leu						
785					790					795					800						
His	Glu	Glu	Phe	Met	Val	Pro	Ala	Thr	Lys	Ala	Leu	Asn	Leu	Pro	Ala						
				805					810					815							
Arg	Thr	Val	Thr	Ala	Asp	Ser	Arg	Thr	Ile	Ser	Asp	Ser	Pro	Met	Thr						
				820				825					830								
Asn	Ile	Asn	Tyr	Gly	Thr	Glu	Phe	Ser	Pro	Val	Val	Asn	Ser	Gln	Ile						
		835</																			

865				870				875				880				
Gln	Gly	Thr	Thr	Asn	Gln	His	Ser	Ser	Thr	Val	Phe	Pro	Leu	Leu	Leu	
				885					890					895		
Gly	Ala	Thr	Glu	Phe	Gln	Asp	Ser	Asp	Gln	Met	Gly	Arg	Gly	Arg	Glu	
				900					905					910		
His	Phe	Gln	Ser	Arg	Pro	Pro	Ile	Thr	Val	Arg	Thr	Met	Ile	Lys	Asp	
				915					920					925		
Val	Asn	Val	Lys	Met	Leu	Ser	Ser	Thr	Thr	Asn	Lys	Leu	Leu	Leu	Glu	
				930					935					940		
Ser	Val	Asn	Thr	Thr	Asn	Ser	His	Gln	Thr	Ser	Val	Arg	Glu	Val	Ser	
				945					950					955		
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